

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
5 December 2002 (05.12.2002)

PCT

(10) International Publication Number  
**WO 02/096505 A3**

(51) International Patent Classification<sup>7</sup>: **A61B 8/14**

(21) International Application Number: PCT/US02/16697

(22) International Filing Date: 28 May 2002 (28.05.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/294,135 29 May 2001 (29.05.2001) US  
10/153,510 22 May 2002 (22.05.2002) US

(71) Applicant: **ETHICON ENDO-SURGERY, INC.**  
[US/US]; 4545 Creek Road, Cincinnati, OH 45242 (US).

(72) Inventor: **MAKIN, Inder, Raj, S.,**; 11388 Donwiddle Drive, Loveland, OH 45140 (US).

(74) Agents: **JOHNSON, Philip, S.,** et al.; JOHNSON & JOHNSON, One Johnson & Johnson Plaza, New Brunswick, NJ 45242 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW.

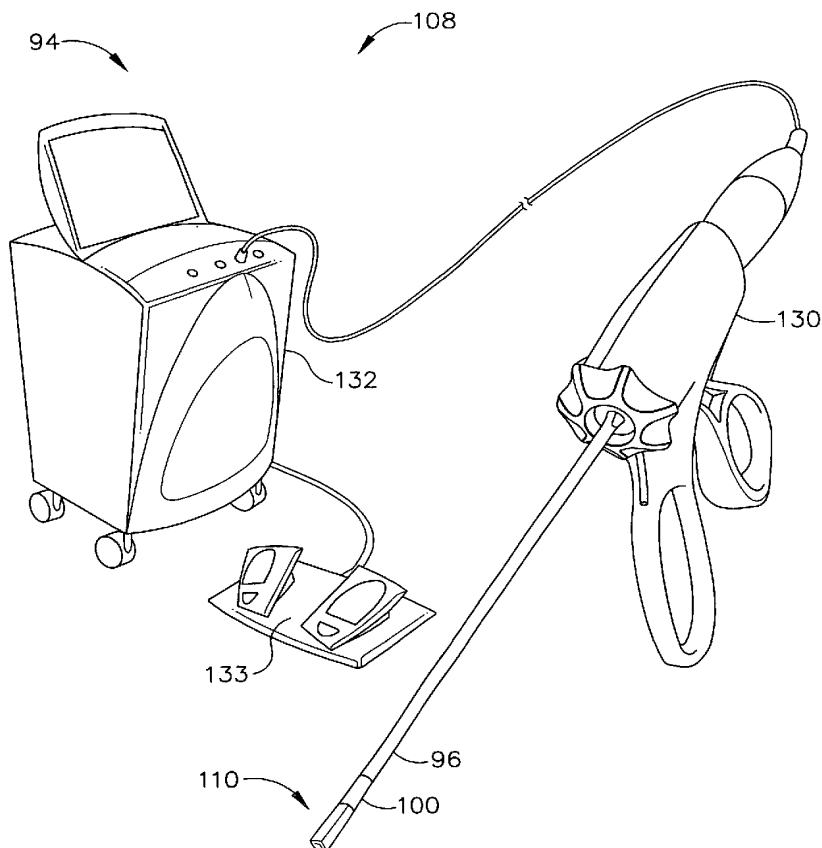
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

[Continued on next page]

(54) Title: EXCISIONAL AND ULTRASOUND MEDICAL TREATMENT SYSTEM



(57) Abstract: An ultrasound medical treatment system (108) includes a tube (96) and first and second end effectors (110). The tube (96) has a distal end (100) insertable into a patient and has a lumen (012). The first end effector has a cutting tool (184), is insertable into the lumen of the inserted tube from outside the patient, and is translatable through the lumen of the inserted tube to inside the patient. The second end effector has an ultrasound medical-treatment transducer assembly (112), is introducible into the lumen of the inserted tube from outside the patient, and is translatable through the lumen of the inserted tube to inside the patient. In one use, the cutting tool (184) takes a biopsy sample of possibly cancerous breast tissue (196) of a patient, and the breast receives ultrasound medical treatment from the transducer assembly to stop hemorrhaging.



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**(88) Date of publication of the international search report:**

6 November 2003

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/16697

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61B 8/14  
US CL : 600/466

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 600/407-471; 128/916; 607/122; 604/ 10, 19, 22, 41, 96, 113, 114, 500; 606/27-32, 35, 38, 41, 159, 169-171; 601/2, 3

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,345,940 A (SEWARD et al.) 13 September 1994 (13.09.1994), cols. 8-12.	1-22
Y	US 5,421,338 A (CROWLEY et al.) 06 June 1995 (06.06.1995), the entire document.	1-22

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:		"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E"	earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

17 October 2002 (17.10.2002)

Date of mailing of the international search report

31 MAR 2003

Name and mailing address of the ISA/US  
Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Facsimile No. (703)305-3230

Authorized officer

Alt Imam

Telephone No. 703-308-1148

**INTERNATIONAL SEARCH REPORT**

PCT/US02/16697

**Continuation of B. FIELDS SEARCHED Item 3:**

**EAST**

search terms: biopsy, tissue, ultrasound, image, effector